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BIBLIOGRAPHY ON HIGHWAY LIGHTING

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Compiled by

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Compiled by MILDRED A. WILSON, *junior librarian, Division of Information Bureau of Public Roads*

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INTRODUCTION

This bibliography has been compiled from the catalog of the Bureau of Public Roads, supplemented to some extent by material from other sources. It includes references to books, periodicals, and publications of societies through 1936.

In preparing the bibliography the following lists were consulted: Industrial Arts Index for 1913–36; Engineering Index 1892–1935; and Public Affairs Information Service 1915–36. There has been no attempt to make it an exhaustive bibliography of the subject.

Many articles on highway lighting appear in one publication, and subsequently they are published in the same form or as abstracts in other publications. There has been an attempt to group together references to the original publication and subsequent reprints, abstracts, or discussions.

The material has been prepared mainly to supply references to recent developments in highway lighting. The listings have purposely been made most numerous for recent years. The grouping of references is by year of publication. Each reference is designated by a citation number appearing at the right side of the page.

An author index appears on page 29. The number following the author's name is the citation number indicating the place of the reference in the bibliography.

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HIGHWAY LIGHTING BY SODIUM VAPOR LAMPS. Illuminating Engin. Soc. Trans. 28: 631–632. 1933.

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NEW METHOD OF ILLUMINATION FOR THE PUBLIC LIGHTING OF MAIN ROADS: SODIUM DISCHARGE LAMPS. Roads and Road Construct. 11: 47. 1933.

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ILLUMINATION OF INTERURBAN ARTERIES. Amer. City 48 (9): 95, 97. 1933.

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ILLUMINATION AND ITS RELATION TO NIGHT TRAFFIC ACCIDENTS. Safety Engin. 66: 196. 1933.

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PRINCIPLES OF DIRECTIVE STREET LIGHTING. Gas Jour. [London] 202: 418–420. 1933.

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MAIN ROAD PUBLIC LIGHTING. Surveyor and Munic. and County Engin. 83: 485. 1933. Abstract in Engineering [London] 135: 11–12. 1933.

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Effective illumination of an underpass resolves itself into two problems—the day lighting and the night lighting. Includes daylight penetration and minimum visibility curves.

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"Before and after" accident records on Mount Vernon Highway between Washington and Mount Vernon and on Saw Mill River Parkway and Hutchinson River Parkway in Westchester County, N. Y., lighted and unlighted.

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FOUR HIGHWAYS HAVE NEW TYPE LIGHTING UNITS. Roads and Streets 77: 79. 1934.

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Demonstrations to be increased by adding 12 sodium lights.

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10,000-LUMEN SODIUM UNITS LIGHT REVERE. Elect. World 103: 294–295, illus. 1934.

Sodium-vapor street lights being used at Revere, Mass., with notable success; installation marks use of largest lamps ever put in service outside a laboratory and largest fixtures so far employed; mounted 19 feet 6 inches above 40-foot wide roadway surface.

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HIGHMAY LIGHTING WITH THE SODIUM VAPOUR LAMP (AS INSTALLED NEAR THREE RIVERS, QUE.). Engin. Jour. [Canada] 17: 461–463, illus. 1934.

Details of 10,000-lumen A. C. lamp with series transformer; assembly of sodium luminare; wiring diagram of photronic relay; future possibilities of highway lighting.

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L'ÉCLAIRAGE DES VOIES PUBLIQUES. Rev. Gen. des Routes 9: 119–120. 1934.

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THE YEAR'S PROGRESS IN ILLUMINATION. Illuminating Engin. Soc. Trans. 29: 755–778, illus. 1934.

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L'ÉLECTRO-LUMINESCENCE ET SES APPLICATIONS ACTUELLES. Ann. Trav. Pub. Belg. 87: 111–133. 1934.

Discusses types of lights and the lighting of the highway tunnel under the Scheldt at Antwerp.

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Lighting of road from Paris to Versailles via Ville d'Avray; general discussion of lighting of road with sodium-vapor lamps; special feature of installation are: Enclosed underground network transformers for installation for 3,000/115 v.; diagram showing hook up of Phillips sodium-vapor lamps.

An analytical résumé of this article, by Henri Tréhard, is in Perm. Internatl. Assoc. Road Cong. Bull. 23: 349–357. 1934.

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METROPOLITAN DISTRICT COMMISSION OF MASSACHUSETTS USES SODIUM VAPOR. Amer. City 49 (3): 97, 99, illus. 1934.

Clover-leaf intersection of Broadway and Revere Beach Parkway; advantages of outdoor lighting with sodium-vapor lamps.

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SODIUM-VAPOR HIGHWAY LIGHTING ON BALLTOWN ROAD AT SCHENECTADY, N. Y. Gen. Elect. Rev. 37: 372–377, illus. 1934.

Purposes of early test installation; equipment installed for 4,000-lumen D. C. system; results; new equipment installed for 10,000-lumen A. C. system; comparison with 10,000-lumen A. C. incandescent lighting; need for further development and increased production.

ERB, E. (160)
BELEUCHTUNG VON AUTOMOBILSTRASSEN. Schweiz. Ztschr. Strassenwesen u. Verwandte Gebiete 20: 93–99, illus. 1934.

Lighting of highways.

GROOME, F. T. (161)
NEED FOR ADEQUATE HIGHWAY LIGHTING: MANY ACCIDENTS CAUSED BY COLLISIONS AT NIGHT WHICH COULD BE AVOIDED IF HIGHWAYS WERE ILLUMINATED. Canad. Engin. 66 (22): 23–25. 1934.

Typical highway fatalities and accidents; causes of accidents; adequate lighting on highway; financing highway lighting.

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HIGHWAY AND STREET LIGHTING. Canad. Engin. 67 (20): 11–15, illus. 1934.

Winter driving demands better lighting because of longer hours of darkness and greater difficulty of quick braking.

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EFFECT ON THE EYE OF THE YELLOW LIGHT OF THE SODIUM VAPOR LAMP. 9 pp. Washington, D. C. 1934.

Reprint no. 1640 from the Pub. Health Repts. v. 49, no. 32, August 10, 1934.

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NACHTVERKEHR AUF AUTOBAHNEN. Verkehrstechnik 15: 69–71, illus. 1934.

Night traffic on motor-vehicle roads.

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HIGHWAY LIGHTING RESEARCH. Natl. Research Council, Div. Engin. and Indus. Research, Highway Research Bd. Proc. (1933) 13 (pt. 1): 244–262, illus. 1934.

Discussion, pp. 262.

Development of use of sodium vapor as illuminant and its application to street and highway lighting, including various types of road surfaces. Describes and illustrates two demonstrations in New Jersey as in accord with Illuminating Engineering Society's Code.

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Address delivered before the New Jersey State League of Municipalities during the nineteenth annual convention, Asbury Park.

Value of life by dollars; automobile a vehicle of safety? two safety demonstrations.

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L'ÉCLAIRAGE ET LA SIGNALISATION DES ROUTES A GRAND TRAFIC. Soc. Ingén. Civ. France. Mém. et Compt. Rend. des Trav. Bull. 87: 733–741. 1934.

The lighting of heavy traffic roads.

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L'ÉCLAIRAGE, LE BASILAGE ET LA SIGNALISATION DES ROUTES. Rev. Gen. des Routes 9: 277–290. 1934.

Highway lighting, beacons, and road signals.

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MODERNE STRASSENBELEUCHTUNG. Asphalt u. Teer Strassenbautech. 34: 415–417, illus. 1934.

Contains pictures of roads and equipment.

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MODERN STREET LIGHTING WITH SPECIAL RELATION TO SAFETY ON THE ROADS. Engineering [London] 138: 688. 1934. Abstract in Quarry and Roadmaking 40: 35–38, illus., 1935; Summary in Roads and Road Construct. 13: 14–15, 1935.

Presidential address to the Junior Institution of Engineers, December 14, 1934. Abridged.

Eye sees by contrast. Only way to improve seeing is by accentuating contrasts. Make contrasts as high as possible by making surface as bright as possible.

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DIE AUTOBAHN BEI NACHT. Verkehrstechnik 15: 294–295, illus. 1934.
Motor highways by night.

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LA LUCE FREDDA E L'ILLUMINAZIONE STRADALE. Strade 16: 248–252, illus. 1934.

Sodium vapor lights and highway illumination.

SCHAER, JOH. (173)
DER HEUTIGE STAND DER FERNSTRASSENBELEUCHTUNG. Verkehrstechnik 15: 291–293, illus. 1934.

Present status of highway lighting.

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BEDEUTUNG DES STRASSENBAUSTOFFES IN DER BELEUCHTUNG EINER STRASSE. Strassenbau 25: 249–250. 1934.

Importance of road material in the lighting of roads.

SIMPSON, R. E. (175)
FATALITIES CORRELATED WITH TRAFFIC AND LIGHTING FOR 60 CITIES. Amer. City 49 (10): 109, 111. 1934.

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PUBLIC SAFETY AS AFFECTED BY STREET LIGHTING. Inst. Traffic Engin. Proc. 5: 86–97. 1934. [Multigraphed.]

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Accident record on Mount Vernon Highway, Saw Mill River Parkway and Hutchinson River Parkway, with and without lights.

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115-VOLT MERCURY-VAPOR LAMP PROVES HIGHLY EFFICIENT: NEWLY DEVELOPED HIGH-PRESSURE SOURCE PERFORMS WELL IN TRIAL INSTALLATIONS. Elect. World 103: 724–727, illus. 1934.

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L'ÉCLAIRAGE DES ROUTES. Rev. Gen. des Routes 9: 21–25, 91–98, illus. 1934.
Highway lighting.

THOMAS, JACQUES. (179)
L'ÉCLAIRAGE DES ROUTES EN RASE CAMPAGNE. Génie Civil 104: 12–15, illus. 1934.

An analytical résumé of this article, by Henri Tréhard, is in Perm. Internatl. Assoc. Road Cong. Bul. 23: 349–357, 1934.

Lighting of roads in the open country. Review of French lighting practice, including lighting with sodium-vapor lamps; highway lighting practice of other European countries.

TRÉHARD, HENRI. (180)
ROAD LIGHTING. Perm. Internatl. Assoc. Road Cong. Bull. 23: 349–357. 1934.

"An analytical résumé of articles by Messrs. Jacques Thomas, Ingénieur des Constructions civiles, and Choix, Ingénieur E. S. E., which appeared in the "Genie Civil" on 6th and 13th January 1934: an article that appeared in "Le Strade", Aug. 1934, no. 8; and a lecture by M. Boutteville, Inspecteur Genéral des Services techniques de la Voie Publique, del-'Eclairage et due Nettoiement de la Ville de Paris, given to the "Groupement pour le Commerce et l'Industrie" on 26th March 1934."

UNITED STATES DEPARTMENT OF COMMERCE, LIGHTHOUSE SERVICE. (181)
REGULATIONS FOR LIGHTING BRIDGES, 1934 10 pp. illus. Washington, D. C. 1934.

VEY, A. H. (182)
HIGHWAY FACILITIES AND MOTOR VEHICLE ACCIDENTS. Assoc. Highway Off. North Atlantic States. Proc. 10: 64–81, illus. 1934.

Highway lighting based on experience in New Jersey.

WALDRAM, J. M. (183)
ROAD SURFACE REFLECTION CHARACTERISTICS AND THEIR INFLUENCE ON STREET LIGHTING PRACTICE. Illuminating Engin. 27: 305–313, 339–349, illus. 1934. [Discussion in Electrician 113: 450–451, 1934; Illuminating Engin. 27: 350–351, 1934].

Discusses relation between the appearance of an illuminated road surface, the reflection properties of the surface, and the distribution of light from the light source and its position. The geometry of the system is examined; design of installations, lighting equipment, and the desirable characteristics of road surfaces.

WARREN, H., and DAVIES, L. J. (184)
ELECTRIC DISCHARGE LAMPS AND THEIR APPLICATION TO ROAD LIGHTING. Inst. Auto. Engin. [England] Proc. 29: 263–308, illus. 1934–35. [Abstracts in Electrician 113: 773–774, illus., 1934; Roads and Road Construct. 13: 51–52, 1935; Illuminating Engin. 28: 49–50, illus., 1935.

Necessity for permanent illumination of roads; optics of seeing on roads; general practical considerations of road lighting; higher-efficiency lamps; control of the flux from lamps, lanterns; road surfaces; the future; note of demonstrations.

WEEKS, SINCLAIR. (185)
NEWTON LIGHTS THE BOSTON-WORCESTER TURNPIKE. Amer. City 49 (1): 95, 97, illus. 1934.

YOUNG, V. R. (186)
WELL-LIGHTED HIGHWAY IN QUEBEC: INSTALLATION OF SODIUM VAPOR NEAR THREE RIVERS, QUE., IS INTERESTING DEVELOPMENT IN HIGHWAY ILLUMINATION. Canad. Engin. 67 (8): 17–18, illus. 1934.

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"ADMIRAL'S HELMETS" HOLD HIGHWAY LIGHTING ONTO THE PAVEMENT. Amer. City 50 (12): 105, illus. 1935.

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BELYSNING AF GADER OG VEJE. Dansk Vejtidsskr. 12 (1): 7–28, illus. 1935.

Lighting of streets and highways by the Copenhagen Department of Lighting. Chart showing lighting strength on a horizontal plane of light p. 9.

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BIG ADVANCE IN GAS LIGHTING OF STREETS. THE SUPERVIA HIGHWAY LAMP. Highways and Bridges 1 (41): 10, illus. 1935.

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DAYTIME CONDITIONS FOR NIGHT DRIVING. Elect. World 105: 1924. illus. 1935.

Sodium-vapor highway lighting equipment, Pompton Lakes, N. J.

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DIE BELEUCHTUNG DER AUTOMOBILSTRASSEN. Schweiz. Ztschr. Strassenwesen u. Verwandte Gebiete 21: 345–347. 1935.

Lighting of motor highways.

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L'ÉCLAIRAGE DES ROUTES. Rev. Gen. des Routes 10: 284–289, illus. 1935

Recent conclusions and new experiences in lighting heavy traffic roads.

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HORIZONTAL BURNING DISCHARGE LAMPS. Roads and Road Construct. 13: 52, illus. 1935.

ANONYMOUS—Continued. (194)
LIGHTING OF TRAFFIC ROUTES. DEPARTMENTAL COMMITTEE'S SUGGESTED STANDARD: "SAFETY AT 30 M. P. H. WITHOUT HEADLIGHTS." Surveyor and Munic. and County Engin. 88: 443. 1935.

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THE MEASUREMENT OF STREET SURFACE BRIGHTNESS. Engineering [London]. 140: 678. 1935.

Meter is simple visual photometer.

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A NEW ERA IN HIGHWAY LIGHTING. SODIUM VAPOR LAMPS ON HIGHWAY IN NEW JERSEY PROVIDE LIGHTING NEVER BEFORE EQUALLED ON ANY ROADWAY IN THE WORLD. Pub. Safety 9 (4) : 17, illus. 1935.

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NEW HIGHWAY SAFETY LIGHTING INAUGURATED AS OHIO LIEUT. GOVERNOR WINKS ELECTRIC EYE. Illuminating Engin. Soc. Trans. 30: 740, 743. 1935.

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NEW ROAD LIGHTING SYSTEM TURNS NIGHT INTO DAY—PLAN BEING TESTED IN OHIO; HAILED AS SAFETY FACTOR. Automotive Daily News 20 (2244) : 16, illus. 1935.

Consists of 39 lighting units, of revolutionary design and shaped like an "Admiral's helmet."

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NEW SYSTEM OF HIGHWAY SAFETY LIGHTING. Safety Engin. 70: 182, illus. 1935.

"Admiral's helmet", new installation located 15 miles southeast of Cleveland.

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NEW TYPE HIGHWAY LIGHTS INSTALLED AS EXPERIMENT AT MCCONNELL SUBWAY. Calif. Highways and Pub. Works 13 (2) : 30, illus. 1935.

Sodium-vapor type.

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OHIO ROAD SECTION EQUIPPED WITH NEW LIGHTING SYSTEM. Engin. News-Rec. 115: 695, illus. 1935.

Photo-electric cell switches system on or off, depending on the natural light available.

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ONE-MILE SECTION OF HIGHWAY LIGHTED BY SODIUM-VAPOR LAMPS OPENED IN NEW JERSEY. Engin. News-Rec. 114: 263, illus. 1935.

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SAFER HIGHWAYS AFTER DARK? THE DEVELOPMENT OF SODIUM-VAPOR LIGHTING FORECASTS A NEW ERA IN THE ILLUMINATION OF OUR MAJOR HIGHWAYS. Better Roads 5 (9) : 17–19, illus.. 1935.

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SODIUM LAMPS FOR SAFETY BUILD LOAD. Elect. World 105: 2144, 2146, illus. 1935.

Sodium lamps used at Geddes, N. Y., on route 5 from Syracuse to Buffalo.

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SODIUM LAMPS AT POMPTON LAKES, N. J., FORECASTS HIGHWAY SAFETY. Amer. City 50 (3) : 101, 103, illus. 1935.

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SODIUM LIGHT 35 TIMES MOONLIGHT FOR SAN FRANCISCO-OAKLAND BRIDGE. Amer. City 50 (9) : 123, 125. 1935.

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SODIUM VAPOR—THE MODERN HIGHWAY LIGHT. Elect. Jour. 32: 289, illus. 1935.

Butterfly reflector is designed for maximum utilization of light on road at Pompton Lakes, N. J.

ANONYMOUS—Continued. (208)
VISIBLE POLICE WOULD REDUCE NIGHT ACCIDENTS. Amer. City 50 (7) : 107, 109. 1935.

ADAM, Z. (209)
CONSIDÉRATION SUR L'ÉCLAIRAGE ROUTIER PAR LAMPES À AMPOULES SELECTIVES. Rev. Gen. des. Routes 10: 289–291, illus. 1935.

Road illumination by lamps with selective bulbs.

ALLBRIGHT, W. J. (210)
THE ELECTRIC DISCHARGE LAMP: INFLUENCE OF COLOR ON VISIBILITY. Surveyor and Munic. and County Engin. 88: 307. 1935.

From a paper delivered at the twelfth annual meeting and conference of the Association of Public Lighting Engineers, held in London, 1935.

BATEMAN, J. W. (211)
THE NEW GASEOUS CONDUCTOR LAMPS AND THEIR APPLICATION. Engin. Jour. [Canada] 18: 249–255, illus. 1935.

Discusses the new sodium and high intensity mercury vapour lamps giving design and characteristics; their application in highway lighting largely.

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LIGHTING THE SAN FRANCISCO-OAKLAND BAY BRIDGE. Gen. Elect. Rev. 38: 567–569. 1935.

Lighting installation; sodium vapor and mazda lamps.

BELL, A. M. (213)
PRESIDENTIAL ADDRESS. Illuminating Engin. 28: 311–314. 1935. Abstract in Electrician 115: 301, 1935, Résumé in Surveyor and Munic. and County Engin. 88: 272, 1935.

Delivered at the twelfth annual conference of Association of Public Lighting Engineers in London, 1935.

Public lighting and road safety; higher values of illumination justified; influence of road surfaces; greater uniformity needed; classification of roadways.

BICKELL, J. P. (214)
SAFETY ON HIGHWAYS. Canad. Engin. 68 (9) : 68–70. 1935. Illumination of highways necessary.

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